

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,738	04/26/2005	Marcus Burgel	2002P16717WOUS	9005
7590 06/04/2007 Siemens Corporation Intellectual Property Department 170 Wood Avenue South			EXAMINER	
			WONG, JOSEPH D	
Iselin, NJ 08830			ART UNIT	PAPER NUMBER
			2168	
			MAIL DATE	DELIVERY MODE
			06/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	T					
	Application No.	Applicant(s)				
	10/532,738	BURGEL ET AL.				
Office Action Summary	Examiner	Art Unit				
	Joseph D. Wong	2168				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
,	Responsive to communication(s) filed on 16 April 2007.					
· <u> </u>	·					
• • • • • • • • • • • • • • • • • • • •	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) Claim(s) <u>8-24</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdray	vn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>8-24</u> is/are rejected. 7)□ Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or	r election requirement.					
Application Papers						
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summary					
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 	Paper No(s)/Mail Do 5) Notice of Informal F 6) Other:					

1

DETAILED ACTION

Claims 8-24 are amended.

Response to Arguments

Arguments with respect to the 35 USC 101 rejections are not persuasive. With respect to claims 8-24, the amendments are directed to data exchange in the abstract because the elements need not exist in the real world and thereby raising doubt that the exchange happens in the real world. The amendment is directed to software and thus the system claims of 8-20 are interpreted as being software per se because no physical article is present within the system of claim 8.

Accordingly nonstatutory subject matter rejections for claims 8-24 are maintained.

Applicant's argument that claims 8, 21 and 23 have "an ability to perform a data exchange between a plurality of distinct software applications" are noted. However, since the argued exchange merely an ability not positively recited, it raises doubt as to whether there is a result because the exchange need not occur.

Applicant's arguments with respect to claim 8 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument that the reference of Williams fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "not in a relational database") are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Application/Control Number: 10/532,738 Page 3

Art Unit: 2168

The remainder of Applicant's arguments amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments filed 16 April 2007 have been fully considered but they are not persuasive. Nonstatutory subject matter rejections are clarified and maintained when appropriate while prior art rejections are substituted with new grounds of rejections as necessitated by amendment.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8-24 rejected for being directed towards nonstatutory subject matter.

Claim 8 is directed to a system consisting of software per se because no physical article is observed within the body of the claims. Software per se is not one of the four categories of invention and therefore claims 9-19 are not statutory. Software per se is not a series of steps or acts and thus is not a process. Software per se is not a physical article or object and as such is not a machine or manufacture. Software per se is not a combination of substances and therefore is not a composition of matter. This clarification to the rejection was necessitated by Applicant's amendment. Claims 9-20 are rejected as depending from claim 8.

Claim 8 appears directed a system comprising abstract elements per se. This claimed subject matter lacks a practical application of a judicial exception (abstract idea) since it fails to

Application/Control Number: 10/532,738

Art Unit: 2168

produce a useful result. Specifically the claimed subject matter does not produce a tangible result.

The claimed subject matter does not positively recite a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for structuring, storing and processing of data.

Claim 8 is directed to a system comprised entirely of a collection of abstract elements.

To be an actual data structure, it must be "a physical or logical relationship among data elements, designed to support specific data manipulation functions, " regardless of whether Applicant calls it a data structure or not. What applicant has claimed does not appear to meet the IEEE definition of a data structure because it does not appear designed for specific data manipulation functions. Specifically "structuring, storing, and processing of data in accordance with a generic object model" appears sufficiently general use due to applicant's failure to positively recite specific data manipulation functions. Claims 9-20 depend from claim 8 and are rejected for the same reason.

Claims 21 and 23 appear directed a method of abstract elements per se. This claimed subject matter lacks a practical application of a judicial exception (abstract idea) since it fails to produce a useful result. Specifically the claimed subject matter does not produce a tangible result.

The claimed subject matter does not positively recite a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather

Application/Control Number: 10/532,738

Art Unit: 2168

than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter produces nothing more than linked objects, which does not produce a tangible result. Claims 22 and 24 depend from claims 21 and 23 respectively and are rejected for the same reason.

Applicants can look to MPEP 2106.01-2106.02, 707.06 (August 2006), Interim Guidelines, Instant Specification, and contemporary case law with a matching fact pattern for further suggestions that may be helpful in overcoming these rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8-9, 12-13, 15-17, 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams, US Patent 6,591,272 B1, filed 22 Feb. 2000 in view of Cheyer et al., US Patent 6,859,931 B1, filed 17 Mar 1999, hereinafter Cheyer.

Regarding claim 8, Williams teaches system for structuring (interpreted to include "ORGANIZATION", Col. 91, Lines 55), storing (interpreted to include "inserts", Col. 60, Lines 40-45) and processing of data in accordance with a generic object model (Fig. 5), wherein the object model has at least one first element which corresponds to a type object (Fig. 4), wherein the type object (Fig. 4-5) comprises the following attributes (Fig. 14): a unique identification of

an object of the type Object for absolute referencing of the object (interpreted to include "CustomerID", Fig. 14), a logical name for labeling the object (interpreted to include "Base Object Name", Fig. 14), and at least one link to a second element (interpreted to include "SalesPersonID", Fig. 14), which corresponds to a type Feature (interpreted to include "Employee_ID", Fig. 15), wherein the type Feature comprises the following attributes: a unique name in relation to the object (interpreted to include "Base Object Name", Fig. 15), and the option of linkage to further components of the type Object (interpreted to include "ManagerID", Fig. 15), to further components of the type Feature (interpreted to include "Employee_ID, Fig. 15), and to data (interpreted to include "LAST NAME", Fig. 15).

Williams does not explicitly teach an object-based system for structuring, storing, and processing of data from a plurality of distinct software applications, said data comprising hierarchically structured data set objects stored in at least one object database, said data subject to one or more incompatible data exchange structures in the plurality of distinct software applications, said data to be changed between the plurality of distinct software applications in accordance with a generic object model.

However, Cheyer teaches an object-based (Title) system for structuring, storing, and processing of data from a plurality of distinct software applications (Fig. 3, items 310, 320), said data comprising hierarchically structured data set objects stored in at least one object database (Fig. 7, items 704, 706, 720), said data subject to one or more incompatible data exchange structures (interpreted to include "protocol incompatible with the ICL by one of the components", Claim 11) in the plurality of distinct software applications (Fig. 3, items 310, 320),

said data to be changed between the plurality of distinct software applications in accordance with a generic object model. (Col. 22, Lines 44-65; Col. 23, Lines 1-15)

Williams and Cheyer are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to extend the teachings of Williams with Cheyer because it greatly expands the flexibility and capabilities of the distributed agent community as discussed in the abstract of Cheyer.

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine the teachings of Williams with Cheyer because it greatly expands the flexibility and capabilities of the distributed agent community as suggested in the abstract of Cheyer.

Regarding claim 9, Williams teaches the system in accordance, wherein the type Object has as further attributes an identification of the object type (Fig. 14) and an identification of the version of the object. (Col. 10, Lines 44-45)

Regarding claim 12, Williams teaches the system in accordance, wherein the elements of the object are linked by references. (Col. 11, Line 45; Col. 26, Line 20)

Regarding claim 13, Williams teaches the system in accordance, wherein the elements of the object are linked by references. (Col. 11, Line 45; Col. 53, Lines 5-15)

Regarding claim 15, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include "XML", Col. 9, Lines 22-23)

Regarding claim 16, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include "XML", Col. 9, Lines 22-23)

Regarding claim 17, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include "XML", Col. 9, Lines 22-23)

Regarding claim 19, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include "XML", Col. 9, Lines 22-23)

Regarding claim 20, Williams teaches the system in accordance with claim 8, wherein the system is part of an engineering system of an automation system. (Col. 9, Lines 23-24, Lines 37-38; Col. 12, Lines 43-45)

Regarding claim 21, Williams teaches a method for structuring (interpreted to include "ORGANIZATION", Col. 91, Lines 55), storing (interpreted to include "inserts", Col. 60, Lines

40-45) and processing data in accordance with a generic object model (Fig. 5), wherein the object model has at least one first element corresponding to the type Object (Fig. 4-5), wherein the type Object (Fig. 4-5) comprises the following attributes (Fig. 14): a unique identification of an object of the type Object for absolute referencing (interpreted to include the "primary key", Col. 12, Line 58) of the object (interpreted to include "CustomerID", Fig. 14), a logical name for labeling the object (interpreted to include "Base Object Name", Fig. 14), and at least one link to a second element (interpreted to include "SalesPersonID", Fig. 14), which corresponds to a type Feature (interpreted to include "Employee ID", Fig. 15), the method comprising: assigning a unique identification (interpreted to include "Employee ID", Fig. 15) to an instance of the type Object for absolute referencing the instance (interpreted to include "Base Object Name", Fig. 15); assigning a logical name for labeling the instance (interpreted to include "BaseObject", Col. 53, Line 30); and linking the instance to the second element (interpreted to include "DEPARTMENT ID", Col. 60, Lines 50-55), wherein the type Feature comprising the following attributes: a unique name in relation to the relevant linked object referenced, and the option of linkage to further components of the type Object (interpreted to include "JOB ID", Col. 60, Lines 55-60), to further components of the type Feature (interpreted to include "LOCATION ID", Col. 60, Lines 50-65), and to data (interpreted to include "HIRE DATE", Col. 60, Lines 50-65).

Williams does not explicitly teach an object-based system for structuring, storing, and processing of data from a plurality of distinct software applications, said data comprising hierarchically structured data set objects stored in at least one object database, said data subject to one or more incompatible data exchange structures in the plurality of distinct software

applications, said data to be changed between the plurality of distinct software applications in accordance with a generic object model.

However, Cheyer teaches an object-based (Title) system for structuring, storing, and processing of data from a plurality of distinct software applications (Fig. 3, items 310, 320), said data comprising hierarchically structured data set objects stored in at least one object database (Fig. 7, items 704, 706, 720), said data subject to one or more incompatible data exchange structures (interpreted to include "protocol incompatible with the ICL by one of the components", Claim 11) in the plurality of distinct software applications (Fig. 3, items 310, 320), said data to be changed between the plurality of distinct software applications in accordance with a generic object model. (Col. 22, Lines 44-65; Col. 23, Lines 1-15)

Regarding claim 22, Williams teaches the method in accordance, wherein the data are structured (Col. 91, Lines 55), stored (Col. 60, Lines 40-45), and processed for engineering an automation system. (Col. 9, Lines 23-24, Lines 37-38; Col. 12, Lines 43-45)

Regarding claim 23, Williams teaches a method for structuring, storing and processing of data in accordance with a generic object model (Fig. 5), wherein the object model has at least one first element which corresponds to the type Object (Fig. 4-5), the method comprising: providing a unique identification of an object of the type Object for absolute referencing (interpreted to include the "primary key", Col. 12, Line 58) of the object (interpreted to include "CustomerID", Fig. 14); providing a logical name for labeling the object (interpreted to include "Base Object Name", Fig. 14); and linking the object to a second element (interpreted to include

Application/Control Number: 10/532,738

Art Unit: 2168

"SalesPersonID", Fig. 14), which corresponds to a type Feature (interpreted to include "Employee_ID", Fig. 15), wherein the type Feature (interpreted to include "Employee_ID", Fig. 15) comprising: a unique name in relation to the linked object (interpreted to include "Base Object Name", Fig. 15), and the option of linkage to further components of type Object (interpreted to include "JOB_ID", Col. 60, Lines 55-60), to further components of type Feature (interpreted to include "LOCATION_ID", Col. 60, Lines 50-65) and to data (interpreted to include "HIRE DATE", Col. 60, Lines 50-65).

Page 11

Williams does not explicitly teach an object-based system for structuring, storing, and processing of data from a plurality of distinct software applications, said data comprising hierarchically structured data set objects stored in at least one object database, said data subject to one or more incompatible data exchange structures in the plurality of distinct software applications, said data to be changed between the plurality of distinct software applications in accordance with a generic object model.

However, Cheyer teaches an object-based (Title) system for structuring, storing, and processing of data from a plurality of distinct software applications (Fig. 3, items 310, 320), said data comprising hierarchically structured data set objects stored in at least one object database (Fig. 7, items 704, 706, 720), said data subject to one or more incompatible data exchange structures (interpreted to include "protocol incompatible with the ICL by one of the components", Claim 11) in the plurality of distinct software applications (Fig. 3, items 310, 320), said data to be changed between the plurality of distinct software applications in accordance with a generic object model. (Col. 22, Lines 44-65; Col. 23, Lines 1-15)

Regarding claim 24, Williams teaches the method in accordance, wherein the data are structured (Col. 91, Lines 55), stored (Col. 60, Lines 40-45), and processed (Fig. 3, item 34) for engineering an automation system. (Col. 9, Lines 23-24, Lines 37-38; Col. 12, Lines 43-45)

Claims 10, 11, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams, US Patent 6,591,272 B1, filed 22 Feb. 2000 in view of Pace et al., US Patent 7,181,731 B2, filed 4 Sep 2001, hereinafter Pace in further view of Devarakonda et al., US Pre-Grant Pub. No/ 2003/0225801 A1, filed 31 May 2002, hereinafter Devarakonda.

Regarding claims 10 and 11, Williams teaches the system in accordance, wherein elements linked by an element of type Feature. Williams does not explicitly teach form a logical subset of all elements of an object. However, Devarakonda teaches form a logical subset of all elements of an object. [0035] Williams and Devarakonda are analogous art. A skilled artisan would have been motivated to adapt the data structure... "with requirements for storing data" as discussed in the abstract of Devarakonda. Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine the teachings of Williams and Devarakonda to adapt the data structure with requirements for storing data as suggested in the abstract of Devarakonda.

Regarding claim 14, Williams teaches the system in accordance, wherein the elements of the object are linked by references. (Col. 11, Line 45; Col. 52, Lines 62-67; Col. 53, Lines 5-15)

Page 13

Art Unit: 2168

See remarks under claim 10.

Regarding claim 18, Williams teaches the system in accordance, wherein the object model is described by an extensible markup language. (interpreted to include "XML", Col. 9, Lines 22-23)

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

If applicant still believes there is patentable subject matter within the disclosure and has reasons why those differences define over the prior art, then applicant can look to MPEP § 324 IV (August 2006) and 37 CFR 1.114 for additional suggestions that may be helpful for overcoming the finality of this office action.

Application/Control Number: 10/532,738 Page 14

Art Unit: 2168

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Wong whose telephone number is 571-270-1015. The examiner can normally be reached on Mon.-Thur. 8:30AM - 6:00PM and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph D. Wong TTV/idw

Tim T. Vo SPE, Art Unit 2168

24 May 2007

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100